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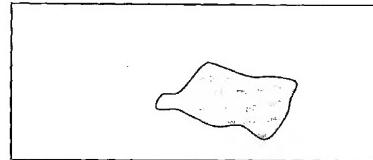
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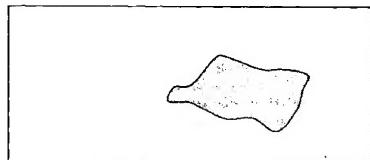
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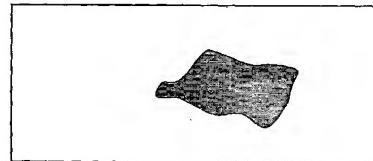
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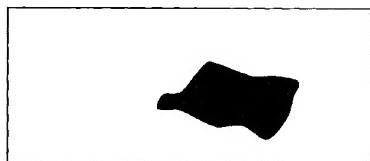
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D

(57) Abstract: This invention relates to the non-invasive determination of the degree of vasoactivity in the microcirculation in a tissue caused by a drug, disease, injury normal or pathological regulation. More specifically, the invention relates to a method of determining the influence on microcirculation in living tissue from an irritative agent, drugs, disease, injuries normal or pathological regulation including, illuminating a tissue surface with polarized light, collecting the backscattered light through a polarizing filter, detecting the backscattered and polarized light by a photo-sensitive array, transferring the collected information in digital form to a computing device, separating the collected information into at least two data matrixes, each representing a specific wavelength range and generating an output data matrix by processing corresponding values in at least two data matrixes by an algorithm, wherein each value in said output data matrix represents the amount of influence on the microcirculation in a source point of the tissue. Thereby a representation of the tissue microcirculation is obtained.

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